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September 19, 2001

Magalie Roman Salas, Secretary  
Federal Communications Commission  
The Portals  
445 12<sup>th</sup> Street, S.W., Room TW-B204  
Washington, D.C. 20554

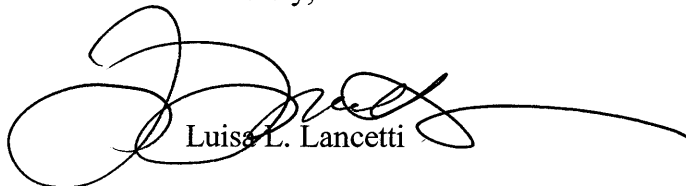
**Re:   *Ex Parte Presentation***  
*Ultra-Wideband Transmission Systems*  
*ET Docket No. 98-153*

Dear Ms. Salas:

Attached for filing is a copy of a letter Sprint PCS sent to Secretary Evans, Secretary Rumsfeld, Secretary Mineta and Administrator Goldin, dated September 10, 2001, in response to a letter dated July 13, 2001 sent by XtremeSpectrum, Inc. to these officials. Please associate this letter with the files in the above-captioned proceeding.

Please contact us if you have questions regarding this submission.

Sincerely,



Luisa L. Lancetti

Attachment



**Luisa L. Lancetti**  
Vice President  
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September 10, 2001

The Honorable Donald L. Evans  
Secretary of Commerce  
The Herbert Hoover Building  
14<sup>th</sup> Street & Constitution Avenue., N.W.  
Washington, D.C. 20230

The Honorable Donald H. Rumsfeld  
Secretary of Defense  
The Pentagon  
Washington, D.C. 20301

The Honorable Norman Y. Mineta  
Secretary of Transportation  
Department of Transportation  
400 Seventh Street, S.W.  
Washington, D.C. 20590

The Honorable Daniel S. Goldin  
Administrator  
National Aeronautics and Space Admin.  
Two Independence Square  
300 E Street, S.W.  
Washington, D.C. 20546

**Re: Ultra-Wideband, FCC Rulemaking, ET Docket 98-153**

Dear Secretary Evans, Secretary Rumsfeld, Secretary Mineta, and Administrator Goldin:

Ultra-wideband ("UWB") is a promising new radio technology, but it will create substantial harm to Sprint PCS and other mobile carriers if the Federal Communications Commission ("FCC") authorizes UWB devices to use the 1.9 GHz band currently licensed to personal communications services ("PCS"). In turn, this development will directly harm the millions of subscribers dependent on PCS network services.

The FCC is currently examining this issue, and ordinarily we would not contact you on this matter. I am compelled to write, however, because one UWB developer, XtremeSpectrum, Inc., claimed in a July 13, 2001 letter to you that UWB devices would not interfere with mobile PCS networks. This assertion is not accurate and is contradicted by tests Sprint PCS conducted with another UWB developer. It is important that you be made aware of the facts here.

Sprint PCS and a major UWB developer, Time Domain Corporation, conducted last year joint tests with an independent research firm, Telcordia, to determine the impact that UWB devices may have on PCS networks. The data confirmed that UWB devices will cause harmful interference to PCS networks even if the FCC were to impose special, rigorous emission levels on such devices:

- One effect of UWB interference would be the loss of existing network capacity, with Sprint PCS estimating that it would be able to serve 250 to

1,000 fewer customers during the busy hour in a medium sized city. Other PCS carriers would be negatively impacted as well.

- A second and separate effect of UWB interference is call blocking — namely, a PCS call in progress will drop or a call attempt will be blocked if the handset is too close to an active UWB device. The data showed increased blockage rates from 1.2% to 4.8% if a PCS handset and UWB device are within three meters and 2% to 7.9% if the two devices are within only two meters of each other.

To put these figures into perspective, Sprint PCS spends tens of million of dollars each year constructing additional “capacity” cell sites to reduce its call blockage rate by one percent. Sprint PCS would thus have to spend enormous sums in an *attempt* to overcome the significant call blockage that it could encounter as a result of the new UWB interference. Other PCS carriers would also be negatively impacted.

Sprint PCS and Time Domain tested the impact of only one UWB device near a PCS handset. However, a recent analysis performed by the National Telecommunications and Information Administration (“NTIA”) suggests that the cumulative interference impact would be much greater if numerous UWB devices are located in the same area. Based on the NTIA analysis, if UWB devices proliferate as proponents claim, the negative impacts of UWB devices on PCS networks would be far worse than those described above. In this regard, Sprint PCS is not aware of *any* evaluations testing the impact of multiple UWB devices in an area, and in all events, UWB should not be authorized in the PCS band until such testing is completed.

Sprint PCS is not alone in its views. Another UWB developer, Multispectral Solutions (“MSSI”), has recognized that UWB devices will cause significant interference to PCS networks, and it has therefore recommended that UWB devices not be permitted to operate in the frequency range below 3.1 GHz. Multispectral Solutions specifically told the FCC last September:

Unfortunately, while some UWB advocates have claimed that UWB operates in the “garbage band” and can superimpose its emissions on existing services without interference thereby “creating spectrum,” such statements are without basis in fact and, in fact, have shown to be false. MSSI Comments, FCC Docket 98-153, at 12 (Sept. 12, 2000).

XtremeSpectrum’s proposed “solution” to the foregoing has been to suggest that UWB use be limited to indoor applications. An indoor restriction on UWB devices may protect outdoor use of PCS. But PCS is an “anywhere” service, and XtremeSpectrum’s proposal is in fact not a solution at all. Most of Sprint PCS’ customers expect their phone to work regardless of their location at the time, whether in a home, office, shopping mall or another public place, both indoors and out. Indeed, a growing percentage of Sprint

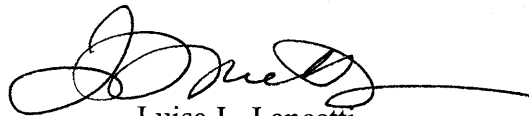
PCS customers use their handset as their only phone. Simply put, relegating PCS to outdoor use is not a meaningful solution.

Sprint PCS paid the Federal Treasury over \$3 billion for the right to have exclusive use of the PCS frequencies it acquired. Other PCS carriers also paid vast sums for PCS licenses. XtremeSpectrum now wants to use this same spectrum for free to provide communications services in competition with Sprint PCS and other PCS carriers. And, it expects Sprint PCS and others to each expend hundreds of millions of dollars to deploy hundreds, and perhaps thousands, of additional cell sites in an attempt to overcome the interference that UWB will cause. This is not right, and courts have held the federal government liable if it unilaterally changes the use of a license during the license term.

Moreover, Sprint PCS and other carriers are beginning to deploy their 3G networks. The Council of Economic Advisers estimated last October that the public benefits from 3G-based services will be \$53-\$111 billion annually. Deployment of UWB devices in the PCS band or other spectrum bands that may be used for 3G services would jeopardize the public benefits that will flow from this new technology.

Finally, Sprint PCS notes that it does not oppose UWB outright, as XtremeSpectrum's letter suggests. To the contrary, Sprint PCS agrees with the proposal put forth by the GPS Council and the airline industry that UWB devices be authorized in the 6-12 GHz bands. Use of these bands would enable UWB developers to introduce their technology, while protecting important services like PCS and GPS.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'L. Lancetti', with a long horizontal line extending to the right.

Luisa L. Lancetti

cc: FCC Chairman, Michael K. Powell.  
FCC Commissioner, Kathleen Q Abernathy  
FCC Commissioner, Michael J. Copps  
FCC Commissioner, Kevin J. Martin  
Mitchell Lazarus, Attorney for XtremeSpectrum, Inc.